

# AMH Inside Out

## Preventing Dehydration

By Paul Rudis, RCEP, Clinical Exercise Physiologist

Although dehydration is not a seasonal issue, this is the time of year when extra focus is put on preventing heat related illness and avoiding dehydration. For the purpose of this article, athletic performance and work that requires moderate to heavy exertion are the same.

Under normal environmental conditions, fluid balance is achieved by regulation of fluid intake through changes in thirst sensation and regulation of water loss by the kidneys. The average fluid requirement for adults is 2 to 3 quarts per day and a rule of thumb is to replace the volume lost through respiration, urination, and perspiration. Sweat losses can increase fluid requirements significantly. Prolonged exercise or working

in hot environments can create losses of nearly two quarts per hour. Consuming fluids in sufficient amounts is essential for normal cellular function and body temperature regulation. Most individuals will replace only about two-thirds of the water lost during exercise, which, over the course of a few days, leads to a state of dehydration.

A systematic approach to fluid replacement is necessary because thirst is not a reliable indicator of fluid needs for individuals exercising or working in hot environments. Fluid replacement should gen-



erally occur before, during and after exercise or hard work. The ultimate goal is to start activity in a hydrated state, avoid dehydration during, and rehydrate before the next session. One to two hours prior to activity the worker/athlete should drink 16 ounces of water and continue to drink at regular intervals once the activity starts. Exercise sessions in excess of one hour or in hot environments may necessitate alternating water and commercially available sports drinks to replace electrolytes.

It is important to remember this time of year, whether you are exercising or working in extreme conditions- drink when you are thirsty; don't wait until you are thirsty to drink.

## Immunization Awareness

By Robert G. Gates, PA-C, MSPH

August is National Immunization Awareness Month. Immunization---one of the most significant public health achievements of the 20<sup>th</sup> century--- is most commonly thought of for children and/or for military personnel, and most healthy adults forget the value of this critical preventive health measure. This is in part because they don't visit a health practitioner unless they are sick, and, consequently, are not offered immunizations.

Experience has shown that the use of therapeutic measures is less effective in the control of major infectious diseases than preventive means, such as well targeted use of vaccines.

In these early years of the Twenty-first Century, many of the most challenging diseases associated with high mortality and morbidity are candidates for prevention through the use

of vaccines. A societal goal for this century is the reversal of the inefficient practice of treating illness without consideration of prevention. Staying up-to-date on recommended vaccines affords protection from many infectious diseases for individuals, their families and friends, and their communities.

Today there are a number of vaccines that are recommended for adults, with dose schedule ranging from annual to once in a lifetime. It is important to discuss with the Primary Care Provider what immunizations are right for each member of the family. Recommendations may change due to planned travel to another country, outbreaks of infectious diseases in the community, ages of the family members and any underlying illness that anyone in the family may have.

Immunizations that are available in the United States include Hepatitis A, Hepatitis B, Tetanus/diphtheria, Tetanus/diphtheria with acellular pertussis, Influenza, Varicella ("chickenpox"), Herpes Zoster ("shingles"), Rabies, Pneumococcal, Meningococcal, Hemophilus influenza type B, Polio, Japanese Encephalitis, Yellow Fever, Typhoid and Measles/Mumps/Rubella. This is not an all-inclusive list as there are new vaccines being developed on an ongoing basis.

Preventive health activities are as much the responsibility of the individual as they are of the healthcare professional. The time to think about the benefits of prevention is now, not when illness strikes. Complacency gives illness the advantage.

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(September 3, 8 & 10)

## Salmonella Update

Jalapeño peppers (July 29, 2008)

After many weeks of focusing on tomatoes as the source of the *Salmonella* epidemic, the FDA has now announced a DNA match between that serious disease-causing bacterium and contaminated fresh jalapeño peppers from Mexico. The peppers had been imported to Texas. Tomatoes are now deemed to be safe to consume; anything with fresh jalapeños, however, should be avoided for the time being. (At press time, the FDA has announced that U.S.-grown jalapeño and serrano peppers are safe to eat.) SR

## Nutritional Supplement Warning—Selenium

By L.B. Sandy Rock, MD, MPH

In this era of quick-fix health schemes, more and more people are heading to nutrition centers, Wal-Marts, and the Internet to find panaceas for good health and longevity. The good news: more people are taking interest in their health and wellness and trying to do what's best for themselves and their families. The bad news: there is an abundance of poor and even dangerous health information on the Internet and at so-called "nutrition centers" ---including ads for thousands of nutritional supplements---masquerading as valid medical advice. Case in point: selenium.

Reported recently at a national meeting of epidemiologists, patients with similar symptoms which included severe hair loss, diarrhea, joint and muscle pain and weakness, skin damage, and nail discoloration led investigators to the discovery that all had been taking a "nutritional supplement" manufactured by an incautious company. The "booster"---*Total Body Formula* and *Total Body Mega Formula*---sold by Total Body Essential Nutrition, Inc., contained 200 times the amount of selenium listed on the label and that quantity was many times the recommended daily allowance for selenium according to the Food and Drug Administration (FDA). Once the connection was made and urgent announcements sent out by the CDC, more than 200 cases emerged from several states, including

Alabama, Florida, Georgia, Kentucky, Michigan, New Jersey, North Carolina, Tennessee, Texas and Virginia. The company---to its credit---sent out a press release and notice to customers and initiated a recall, claiming a mistake in production had resulted in excess selenium in the product.

There are many so-called nutritional supplements on the market---uncontrolled, unregulated and touting all sorts of health benefits. For most, there is no medical scientific evidence of health benefit; for some, there are dangers involved with using them. This report is an example of that reality. As one case report stated, "A consequence of unregulated use of selenium-containing supplements is selenium toxicity." As with all over-the-counter products for your and your family's use, "caveat emptor"---"let the buyer beware"---is apt. Remember: "It's your health. Own it!"



<sup>1</sup><http://www.annals.org/cgi/content/full/0000605-200806170-00228v1?paper>

Reference: <http://ods.od.nih.gov/factsheets/selenium.asp>

## Healthy Recipes

### Cantaloupe Crush

2 Servings

#### INGREDIENTS

1 cup cantaloupe cubes  
1/3 cup pineapple chunks  
1/4 cup orange juice  
1/2 cup frozen or canned peaches  
1 teaspoon sugar  
3 ice cubes

#### DIRECTIONS

Whirl all ingredients in a blender until smooth.  
Serve!

*Leftover shake can be frozen in pop molds or 5 ounce paper cups with popsicle sticks.*



*Whether you're suffering from nausea, heartburn, or just in need of a cool and refreshing snack or breakfast idea, this is the perfect nutritious pick-me-up!*

PER SERVING:	
Calories	Approx. 100
Fiber	0 g
Cholesterol	0 mg
Sodium	0 mg
Protein	1.3 g
Carbohydrate	24.3 g
Total fat	0.4 g

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